ABSTRACT OF THE DISCLOSURE

A method and apparatus enabling information including respective angular directions to be obtained for one or more sound sources includes a sound source direction estimation section for frequency-domain and time-domain processing of sets of output signals from a microphone array to derive successive estimated angular directions of each of the sound sources. The estimated directions can be utilized by a passage detection section to detect when a sound source is currently moving past the microphone array and the direction of the sound source at the time point when such passage detection is achieved, and a motion velocity detection section which is triggered by such passage detection to calculate the velocity of the passing sound source by using successively obtained estimated directions. In addition it becomes possible to produce directivity of the microphone array, oriented along the direction of a sound source which is moving past the microphone array, enabling accurate monitoring of sound levels of respective sound sources.